

Certificate of Compliance

Certificate: 80047820 Master Contract: 601723

Project: 80047820 **Date Issued:** 2020-08-12

Issued to: VILLARREAL DIVISIÓN EQUIPOS S.A. DE CV.

Morelos 905 Sur, Col Centro, Allende, Nuevo León, C.P. 67350

MEXICO

Attention: Ingrid Sujey Leal Ibarra

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only, and





Issued by: Jeffrey Chen Jeffrey Chen

PRODUCTS

CLASS - C385156 - LIQUID PUMPS - Component - Motors

CLASS - C385196 - LIQUID PUMPS - Component - Motors Certified to US Standards

<u>PART A</u>: Component Type Submersible Deep Well Pump Motors, Models MSAT4 series, rated 110-115 V, 220-230 V, 460 V, 60 Hz, 0.5 to 7.5 hp, single phase or three phase, insulation Class F, cord-connected.

MSAT4 1/211152H, MSAT4 1/212302H, MSAT4 3/412302H, MSAT4 112302H, MSAT4 1.512302H, MSAT4 1/21115, MSAT4 1/21230, MSAT4 3/41230, MSAT4 11230, MSAT4 1.51230, MSAT4 21230, MSAT4 31230, MSAT4 51230, MSAT4 1/23230, MSAT4 3/43230, MSAT4 13230, MSAT4 1.53230, MSAT4 23230, MSAT4 33230, MSAT4 53230, MSAT4 7.53230, MSAT4 1/23460, MSAT4 3/43460, MSAT4 13460, MSAT4 1.53460, MSAT4 23460, MSAT4 33460, MSAT4 33460, MSAT4 33460, MSAT4 33460, MSAT4 33460

<u>PART B</u>: Component Type Submersible Deep Well Pump Motors, Models MSAT6 series, rated 220-230 V, 460 V, 60 Hz, 7.5-50 hp, three phase, insulation Class F, cord-connected.

MSAT6 7.53230, MSAT6 103230, MSAT6 153230, MSAT6 203230, MSAT6 253230, MSAT6 303230, MSAT6 7.53460, MSAT6 103460, MSAT6 153460, MSAT6 203460, MSAT6 253460, MSAT6 303460, MSAT6 403460, MSAT6 503460



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NOMENCLATURE FOR 4 INCH MODELS IN PART A:

Model	MSAT	4	1/2	1	115	2H
Suffixes	(1)	(2)	(3)	(4)	(5)	(6)

Suffixes	Description			
(1)	MSAT = Component Type Submersible Deep Well Pump Motors, encapsulated-resin filled, cast iron.			
(2)	4 = 4 inch			
(3)	$\frac{1}{2} = 0.5$ HP, $\frac{3}{4} = 0.75$ HP, $1 = 1$ HP, $1.5 = 1.5$ HP, $2 = 2$ HP, $3 = 3$ HP, $5 = 5$ HP, $7.5 = 7.5$ HP			
(4)	1 = single phase; 3 = three phase			
(5)	115 = 110-115 V, 230 = 220-230V, 460 = 460V			
	Represents Capacitor type and/or Starting Method.			
	For single phase, 4 inch pump motors: $2H = 2$ wire, blanket = Start capacitor, Double capacitors or			
(6)	Running capacitor.			
	Note: This Suffix is not applicable for three phase, 4 inch pump motors.			

NOMENCLATURE FOR 6 INCH MODELS IN PART B:

Model	MSAT	6	7.5	3	230
Suffixes	(1)	(2)	(3)	(4)	(5)

Suffixes	Description		
(1)	MSAT = Component Type Submersible Deep Well Pump Motors, encapsulated-resin filled, cast iron.		
(2)	6 = 6 inch		
(3)	7.5 = 7.5HP, $10 = 10$ HP, $15 = 15$ HP, $20 = 20$ HP, $25 = 25$ HP, $30 = 30$ HP, $40 = 40$ HP, $50 = 50$ HP		
(4)	3 = three phase		
(5)	230 = 220-230V, 460 = 460V		



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Conditions of Acceptability

For use only in products where the acceptability of the combination is determined by CSA. The following items are limitations to be considered during the end-use investigation:

- 1. These motors are certified as components for use in permanently-installed submersible deep well pumps, where the suitability of the combination is to be determined by CSA.
- 2. The suitability of these pump motors for use other than submersed in water, has not been determined by this investigation.
- 3. The Temperature Test conducted on the pump motors described in this Report were done in 30°C water temperature, and the pump motors were loaded to delivering full rated operating power and, if applicable, multiplied by marked service factor.
- 4. Each pump motor provided with a male connector for supply connection. A detachable supply-cable assembly consisting of a female contact connector rated for use with deep-well cable shall be provided and evaluated during end-use investigation.
- 5. These pump motors are designed to be protected by separate overload protection device. The suitability of the overload device shall determined during end-use investigation.
- 6. The following tests were conducted during the investigation:
 - Input
 - Normal Temperature
 - Dielectric Withstand
 - Submersion
 - Insulation Resistance
- 7. The submersion test was conducted with specific seal construction which is integral part of deep well cable, refer to "Illustrations of Connectors" of this Report for details. The detailed information and illustrations of the seal construction should be well documented in the end-product report, if it was used to waive the submersion test.



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APPLICABLE REQUIREMENTS

CSA C22.2 No. 108-14 - Liquid Pumps

UL 778, 6th Ed - October 20, 2017 - Motor-Operated Water Pumps

MARKINGS

Each unit shall bear all the required markings identified in the applicable certification report(s).